

In re: Michael Martin
 Appl No.: 10/598,671
 Filed: Sept. 7, 2006
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Amendments to the claims:

1-29. (Cancel)

30. (New) A method of treating endotoxic shock, comprising administering an effective amount of Gsk-3 inhibitor to a subject having endotoxic shock, wherein the inhibitor is lithium or a pharmaceutically acceptable salt thereof.

31. (New) The method of claim 30, wherein the Gsk-3 inhibitor is administered systemically.

32. (New) The method of claim 30, wherein the administration is selected from the group consisting of topical, ophthalmic, vaginal, rectal, intranasal, oral, inhalation, parenteral, intravenous, intraperitoneal, intramuscular, subcutaneous, intracavity, and transdermal routes.

33. (New) The method of claim 30, wherein the pharmaceutically acceptable salt is lithium chloride.

34. (New) The method of claim 30, wherein the endotoxic shock is caused gram negative bacterial infection.

35. (New) The method of claim 34, wherein the bacterial infection is caused by bacteria selected from the group consisting of: *Clostridium tetani*, *Clostridium perfringens*, *Clostridium botulinum*, *Clostridium species*, *Pseudomonas aeruginosa*, *Pseudomonas species*, *Campylobacter species*, *Vibrio cholerae*, *Ehrlichia species*, *Actinobacillus pleuropneumoniae*, *Pasteurella haemolytica*, *Pasteurella multocida*, *Pasteurella species*, *Legionella pneumophila*, *Legionella species*, *Salmonella typhi*, *Salmonella species*, *Shigella species*, *Brucella abortus*, *Brucella species*, *Chlamydia trachomatis*, *Chlamydia psittaci*, *Coxiella burnetti*, *Escherichia coli*, *Neisseria meningitidis*, *Neisseria gonorrhea*, *Haemophilus influenzae*, *Haemophilus ducreyi*, *Hemophilus species*, *Yersinia pestis*, *Yersinia enterocolitica*, *Yersinia species*, *Escherichia hirae*, *Escherichia species*, *Enterobacteriaceae*, *Burkholderia cepacia*, *Burkholderia pseudomallei*, *Francisella tularensis*, *Bacteroides fragilis*, *Fusobacterium nucleatum*, *Prevotella species*, and *Cowdria ruminantium*.

36. (New) The method of claim 34, wherein the Gsk-3 inhibitor is administered to a subject at a time selected from the group consisting of at least 1 hour, at least 2 hours, at least 3 hours, at least 4 hours, at least 5 hours, at least 6 hours, at least 12 hours, at least 24 hours, at least 36 hours, and at least 48 hours after infection.

37. (New) A method of treating septicemia in a surgery patient, comprising administering an effective amount of Gsk-3 inhibitor to the surgery patient, wherein the inhibitor is lithium or a pharmaceutically acceptable salt thereof.

38. (New) The method of claim 37, wherein the Gsk-3 inhibitor is administered systemically.

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39. (New) The method of claim 37, wherein the administration is selected from the group consisting of topical, ophthalmic, vaginal, rectal, intranasal, oral, inhalation, parenteral, intravenous, intraperitoneal, intramuscular, subcutaneous, intracavity, and transdermal routes.
40. (New) The method of claim 37, wherein the pharmaceutically acceptable salt is lithium chloride.
41. (New) The method of claim 37, wherein the Gsk-3 inhibitor is administered to a subject at a time selected from the group consisting of at least 1 hour, at least 2 hours, at least 3 hours, at least 4 hours, at least 5 hours, at least 6 hours, at least 12 hours, at least 24 hours, at least 36 hours, and at least 48 hours after surgery of the patient.
42. (New) The method of claim 37, wherein the Gsk-3 inhibitor is administered to a subject at a time selected from the group consisting of at least 1 hour, at least 2 hours, at least 3 hours, at least 4 hours, at least 5 hours, at least 6 hours, at least 12 hours, at least 24 hours, at least 36 hours, and at least 48 hours prior to surgery of the patient.
43. (New) A method of treating microbial infection in a subject, comprising administering an effective amount of Gsk-3 inhibitor to the subject, wherein the inhibitor is lithium or a pharmaceutically acceptable salt thereof.
44. (New) The method of claim 43, wherein the Gsk-3 inhibitor is administered systemically.
45. (New) The method of claim 43, wherein the administration is selected from the group consisting of topical, ophthalmic, vaginal, rectal, intranasal, oral, inhalation, parenteral, intravenous, intraperitoneal, intramuscular, subcutaneous, intracavity, and transdermal routes.
46. (New) The method of claim 43, wherein the pharmaceutically acceptable salt is lithium chloride.
47. (New) The method of claim 43, wherein septicemia is caused by bacteria selected from the group consisting of: *Abiotrophia*, *Achromnzbacter*, *Acidaminiococcus*, *Acidovorax*, *Acinetobacter*, *Actinobacillus*, *Actinobaculum*, *Actinomadura*, *Actinoimycetes*, *Aerococcus*, *Aeromonas*, *Afipia*, *Agrobacterium*, *Alcaligenes*, *Alloiococcus*, *Alteromonas*, *Amycolata*, *Amycolatopsis*, *Anaerobospirillum*, *Anaerorhabdus*, *Arachnia*, *Arcanobacterium*, *Arcobacter*, *Arthrobacter*, *Atopobium*, *Aureobacterium*, *Bacteroides*, *Balneatrix*, *Bartonella*, *Bergeyella*, *Bifidobacterium*, *Bilophila*, *Branhamella*, *Borrelia*, *Bordetella*, *Brachyspira*, *Brevibacillus*, *Brevibacterium*, *Brevundimonas*, *Brucella*, *Burkholderia*, *Buttiauxella*, *Butyrivibrio*, *Calymmatobacterium*, *Campylobacter*, *Capnocytophaga*, *Cardiobacterium*, *Catonella*, *Cedecea*, *Cellulomonas*, *Centipeda*, *Chlamydia*, *Chlamydophila*, *Chromobacterium*, *Chyseobacterium*, *Chryseomonas*, *Citrobacter*, *Clostridium*, *Collinsella*, *Comamonas*, *Corynebacterium*, *Coxiella*, *Cryptobacterium*, *Delftia*, *Dermabacter*, *Dermatophilus*, *Desulfomonas*, *Desulfovibrio*, *Dialister*, *Dichelobacter*, *Dolosicoccus*, *Dolosigranulum*, *Edwardsiella*, *Eggerthella*, *Ehrlichia*, *Eikenella*, *Empedobacter*, *Enterobacter*, *Enterococcus*, *Erwinia*, *Erysipelothrix*, *Escherichia*, *Eubacterium*, *Ewingella*, *Exiguobacterium*, *Facklamia*, *Filifactor*, *Flavinmonas*, *Flavobacterium*, *Francisella*,

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Fusobacterium, Gardnerella, Gemella, Globicatella, Gordona, Haemophilus, Hafnia, Helicobacter, Helococcus, Holdemania Ignavigramum, Johnsonella, Kingella, Klebsiella, Kocuria, Koserella, Kurthia, Kytococcus, Lactobacillus, Lactococcus, Lautropia, Leclercia, Legionella, Leminorella, Leptospira, Leptotrichia, Leuconostoc, Listeria, Listonella, Megasphaera, Methylobacterium, Microbacterium, Micrococcus, Mitsuokella, Mobiluncus, Moellerella, Moraxella, Morganella, Mycobacterium, Mycoplasma, Myroides, Neisseria, Nocardia, Nocardiosis, Ochrobactrum, Oeskovia, Oligella, Orientia, Paenibacillus, Pantoea, Parachlamydia, Pasteurella, Pediococcus, Peptococcus, Peptostreptococcus, Photobacterium, Photorhabdus, Plesiomonas, Porphyromonas, Prevotella, Propionibacterium, Proteus, Providencia, Pseudomonas, Pseudonocardia, Pseudoramibacter, Psychrobacter, Rahnella, Ralstonia, Rhodococcus, Rickettsia Rochalimaea, Roseomonas, Rothia, Ruminococcus, Salmonella, Selenomonas, Serpulina, Serratia, Shewenella, Shigella, Simkania, Slackia, Sphingobacterium, Sphingomonas, Spirillum, Staphylococcus, Stenotrophomonas, Stomatococcus, Streptobacillus, Streptococcus, Streptomyces, Succinivibrio, Sutterella, Suttonella, Tatumella, Tissierella, Trabulsiella, Treponema, Tropheryma, Tsakainurella, Turicella, Ureaplasma, Vagococcus, Veillonella, Vibrio, Weeksella, Wolinella, Xanthomonas, Xenorhabdus, Yersinia, and Yokenella species.

48. (New) The method of claim 43, wherein the microbial infection is caused by a parasite selected from the group consisting of: *Toxoplasma gondii*, *Plasmodium* species, *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium malariae*, *Trypanosoma brucei*, *Trypanosoma cruzi*, *Leishmania*, *Leishmania major*, *Schistosoma* species, *Schistosoma mansoni*, and *Entamoeba histolytica*.

49. (New) The method of claim 43, wherein the microbial infection is caused by a fungus selected from the group consisting of: *Candida albicans*, *Cryptococcus neoformans*, *Histoplasma capsulatum*, *Aspergillus fumigatus*, *Coccidioides immitis*, *Paracoccidioides brasiliensis*, *Blastomyces dermatitidis*, *Pneumocystis carinii*, *Penicillium marneffii*, and *Alternaria alternata*.

50. (New) The method of claim 43, wherein the Gsk-3 inhibitor is administered to a subject at a time selected from the group consisting of at least 1 hour, at least 2 hours, at least 3 hours, at least 4 hours, at least 5 hours, at least 6 hours, at least 12 hours, at least 24 hours, at least 36 hours, and at least 48 hours after infection.